Western Sydney Technical Briefing

Agenda

Welcome
- Jeff McCarthy, Director Infrastructure Development, Roads and Maritime Services

Address
- Hon. Paul Fletcher, Federal Minister for Major Projects

Address
- Hon Duncan Gay, NSW Minister for Roads, Maritime and Freight

The ‘Wave’: progress update since Major Projects Forum 2020
- Jeff McCarthy, Director Infrastructure Development, Roads and Maritime Services

Western Sydney Program Office - Technical Briefing
- Kevin Doherty, GM Western Sydney Program Office Roads and Maritime Services
- Richard Martin, Advisian

Panel Q&A
- Jeff McCarthy, Kevin Doherty, Emma Davies, Richard Martin

Closing remarks and networking
Western Sydney Infrastructure Plan
Overview Video

The Roads and Maritime ‘Wave’
More than $16 billion across five years

- Record transport spend
- 170 major projects
- More than double our existing major project capital expenditure.
Major Projects 2020 Forum – 29 July

Presenting our Forward Work Plan
Your feedback to us

- Keep to the program
- Reduce the procurement burden on industry
- Bring projects forward to cater for slack in the market.
‘Wave’ procurement strategy
Shifting Roads and Maritime’s procurement activity to capture marketing resource capacity and value ahead of forecast industry peak

- Forecast shortage of local industry resources
- Rapid price increases from demand/supply imbalances
- Potential for excessive risk pricing premiums

Maximise early value using performance-based competition, to re-engage resources for further projects

Move projects forward to capture industry resource capacity and better value through competitive pricing early in the investment cycle
BAU vs Implementation (priority 1)

Projects starting construction procurement each quarter

By: total est. project cost, which includes Roads and Maritime's costs, design, property, planning, etc.

Current BAU Scenario

After Implementation of Priority 1 Delivery Strategies

Legend
- Pacific Highway (excl. DP)
- Freight & Regional
- Greater Sydney
- Western Sydney
- Project brought forward, aggregated or disaggregated
Today

Western Sydney – over $1.5 billion to the market

- Four (4) major projects to be procured in the next 12 – 18 months
- All four (4) projects ‘brought forward’
- Two projects brought forward by more than 12 months
  - First to kick off with EOI this month
- Early engagement to:
  - Aid in project selection, minimise tender burden
  - Address current Tier 1 and Tier 2 capacity.
Western Sydney overview
Western Sydney Program Office

Western Sydney Program Office
$5.5 billion
(Includes Western Sydney Infrastructure Plan)
Projects to be procured – scope and constraints
Projects to be procured

The Northern Road (TNR)

- TNR Upgrade:
  - About 35km - Narellan to Penrith
  - Total estimated cost $1.6b
  - Four stages originally contemplated
  - Upgrading a generally two lane road to an ultimate six or eight lane divided road

- TNR stage 1 (3.3km) construction tender to be awarded in November

- TNR stages 2, 3 and 4 to be procured in the next 12 – 18 months.
Projects to be procured
Bringelly Road (BR)

• BR Upgrade:
  – About 10km – Leppington to Bringelly
  – Total Estimated Cost $509m
  – Two stages originally contemplated
  – Upgrading a generally two lane road to an ultimate six lane divided road

• BR Stage 1 (5.3km) currently in construction

• BR Stage 2 to be procured in the next 12 – 18 months.
## Four projects to be procured

### Current status

<table>
<thead>
<tr>
<th></th>
<th>Scoping and investigation</th>
<th>Announce preferred option</th>
<th>Display environmental assessment</th>
<th>Project approval</th>
<th>Detailed design</th>
<th>Award contract</th>
<th>Building started</th>
<th>Open to traffic</th>
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<tbody>
<tr>
<td>TNR2</td>
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<td>TNR3</td>
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<td>BR2</td>
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The Northern Road Upgrade Stage 2 (TNR2) and Bringelly Road Upgrade Stage 2 (BR2)
Projects to be procured: TNR2/ BR2

Contract packaging

- Projects have similar characteristics:
  - Brownfields widening
  - Complexity/Risk
  - Timeframes

- Complex interface issues around Interchange

- Traffic management between The Northern Road and Bringelly Road – timing critical

- Packaging of projects to:
  - Minimise tender burden and
  - Target latent market segments to maximise use.
## Projects to be procured: TNR2 / BR2

### Overview

<table>
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<tr>
<th>Project</th>
<th>• TNR2 / BR2</th>
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</table>
| **Length (approx.)** | • TNR2: 10km between Peter Brock Drive, Oran Park and Mersey Road, Bringelly  
• BR2: 4.3km between King Street, Rossmore and TNR, Bringelly |
| **Value (approx.)** | • Total project value >$500m |
| **Key Features** | • Upgrade TNR from generally two lanes to four lanes, with wide shoulders  
• Upgrade Bringelly Road from generally two lanes to four lanes  
• New grade separated interchange at The Northern Road and Bringelly Road. |
Projects to be procured: TNR2/BR2

Constraints

• Rossmore Public School – car park to be relocated before there is any impact on existing parking and access

• Utilities – 132kV Transgrid transmission line relocation

• Property access arrangements proceeding well

• Traffic management during construction, especially access along both Bringelly Road and The Northern Road in the vicinity of the proposed interchange

• Managing construction and operational noise impacts

• Heritage and Environmental considerations around Bringelly.
The Northern Road Upgrade
Stage 3 (TNR3)
Western Sydney Infrastructure Plan
The Northern Road Stage 3 video

## Projects to be procured: TNR3

### Overview

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<th>Project</th>
<th>TNR3</th>
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<tbody>
<tr>
<td>Length (approx.)</td>
<td>10.5km between Littlefields Road, Luddenham and Jamison Road, Penrith</td>
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<tr>
<td>Value (approx.)</td>
<td>Total project value &gt;$500m</td>
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### Key Features
- Widening between Jamison Road and Bradley Street to provide four lanes in each direction
- Widening between Bradley Street and Littlefields Road to provide three lanes in each direction
- Dedicated bus lane in each direction
- M4 Motorway interchange
- 17 intersections to be upgraded.
Projects to be procured: TNR3
Contract packaging

- Logical to split TNR3 into two contract packages, with the interface south of Glenmore Parkway

- TNR3 North (TNR3N) ~5km
  - Upgrade in existing road corridor / urban environment north of M4 Motorway
  - Complex M4 Motorway interchange / bridge structure
  - Total project value >$300m

- TNR3 South (TNR3S) ~5.5km
  - Upgrade in semi rural environment
  - Timing of land acquisition from Department of Defence (in progress)
  - Total project value >$200m.
Projects to be procured: TNR3 North

Constraints

• Traffic management during construction:
  – 70,000 vehicles per day on the M4 Motorway / 55,000 on The Northern Road
  – Existing capacity to be retained during peak periods
  – 100 property accesses to be retained throughout construction
  – The Glenmore Parkway roundabout is the main point of access to Glenmore Park and ~1200 homes

• Existing bridge constructed in 1970 to former bridge standards (T44)

• Narrow corridor, especially north of Maxwell Street (~40m)

• Flood mitigation requirements in particular south of M4.
Projects to be procured: TNR3 South

Constraints

- Acquisition of Defence Establishment Orchard Hills land
- Specific access requirements for working on/adjacent to defence lands including criminal records checks
- 330kV line just south of Glenmore Parkway cannot be impacted
- Road level increase (~1m+) and additional cross drainage required
- New connecting road between Longview Road and Kings Hill Road required prior to impacting access at Longview Road
- Crossing of Warragamba water supply pipelines
- Early relocation of Sydney Water main supply required from along current eastern edge of The Northern Road (south of Glenmore Parkway).
The Northern Road Upgrade
Stage 4 (TNR4)
## Projects to be procured: TNR4

### Overview

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<th>Project</th>
<th>TNR 4</th>
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<tr>
<td>Length (approx.)</td>
<td>11km between Mersey Road, Bringelly and Littlefields Road, Luddenham</td>
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<tr>
<td>Value (approx.)</td>
<td>Total project value &gt; $500m</td>
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</tbody>
</table>
| Key Features | Widening from a two lane to a four lane divided road (wide central median to allow for six lanes)  
M12 Motorway Interchange  
New route for TNR4 as part of the existing road is on land required for the proposed Western Sydney Airport at Badgerys Creek. |
Projects to be procured: TNR4

Contract packaging

• TNR4 ~11km

• Upgrade in semi rural environment, with around half being greenfields

• Existing route of TNR4 crosses through the proposed airport site and needs to be relocated early to facilitate airport construction.
Projects to be procured: TNR4

Constraints

- Meeting announced timeframes – 2019
- Land acquisition from Commonwealth adjacent to proposed airport site and key private and commercial land owners
- Any impacts resulting from the airport EIS process
- Access to properties both for investigation and construction
- Potential relocation of Transgrid 330kV above ground electrical service to within road corridor
- Greenfield elements lead to increased Environmental and Aboriginal Heritage risk.
Procurement model selection
TNR2/BR2 procurement strategy

Decision considerations

- TNR2 and BR2 identified as priority projects for potential aggregation of projects into larger packages, consistent with the “Wave” procurement strategy
- Detailed design and documentation well advanced
- Industry capacity and appetite
- Demonstration of value for money outcomes
- **Features of TNR2/BR2:**
  - A Design then Construct delivery method will be used for TNR2 / BR2
  - This will lead to a Construct Only contract with substantial Lump Sum pricing elements.
TNR3

Procurement strategy decision considerations

• Planning approval targeted for February 2017, sets earliest construction start as April 2017
• Need for high capacity access to Western Sydney airport site via M4 Motorway / TNR3 by end of 2019
• The existing unsatisfactory Level of Service of the M4 Interchange
• M4 Interchange upgrade will be highly complex and requiring:
  – Contractor input to fully describe the construction sequencing and impact of that construction in the EIS
  – Traffic movements to be maintained during construction
  – Adequate time for construction, whilst complete by end of 2019
• Maximise time to negotiate Department of Defence land (hence de-risk)
• Industry capacity and appetite, and sequencing of other TNR stages
• Demonstration of value for money outcomes.
TNR3

Procurement strategy model selection

• TNR3 to be delivered as **two contract packages** – interface south of Glenmore Parkway

• **Features of TNR3N:**
  – D&C Lump Sum delivery method
  – Greater opportunity to benefit from innovative D&C solutions developed by tenderers (in particular M4 interchange)
  – Accelerated procurement (procured in parallel with EIS) – Allows earlier commencement of construction
  – Tenderers’ designs and construction methodology to be used to inform the EIS

• **Features of TNR3S:**
  – Design then construction delivery method
  – Start of procurement deferred to allow for optimal outcome to be negotiated with Department of Defence for land acquisition.
TNR4

Procurement strategy decision considerations

• Planning approval targeted for February 2017, sets earliest construction start as April 2017

• Department of Infrastructure and Regional Development (DIRD) requirement for the section of TNR which crosses the western Sydney airport site to be re-located by the end of 2019

• Industry capacity and appetite, and sequencing of other TNR stage tender processes

• Demonstration of value for money outcomes.
TNR4

Procurement strategy model selection

- TNR4 to be delivered as a single contract package
- Separable portion for one carriageway of the diversion around the airport land to be delivered early

**Features of TNR4:**
- D&C Lump Sum delivery method
- greater opportunity to benefit from innovative D&C solutions developed by tenderers
- Accelerated procurement (procured in parallel with EIS) – Allows earlier commencement of construction
- Tenderers’ designs and construction methodology to be used to inform the EIS process.
TNR3N / TNR4

“Accelerated Procurement”

- D&C delivery method to be used for TNR3N and TNR4 - leading to a fixed lump sum / fixed time D&C contract

- D&C contract based on **functional requirements** and executed in parallel with the planning approval process – a significant shift from ‘Business as Usual’:
  - Allows the market to innovate in the design and construction of the project
  - Shortens the time to commencing construction
  - Tenderers’ designs and construction methodology used to inform the EIS
  - Typical Roads and Maritime SWTC, allowing tenderers to innovate subject to meeting functional requirements and defined risk allocation

- Procurement process will include interactive process to guide tenderers.
TNR3N / TNR4
Parallel planning and procurement

**EIS essentials:**
- Establish ‘Tender Baseline Conditions of Approval’
- EIS and procurement milestones linked (timing of required inputs)
- Strict probity controls.
What to expect in the next 12 – 18 months
The Northern Road timing
Comparison with Major Projects 2020
The Northern Road Upgrade Stage 3 North Pre-Christmas program

- **2nd Nov**
  - TNR Industry Briefing
  - Thurs 5th Nov

- **9th Nov**
  - Market aligns

- **16th Nov**
  - EOI Advert on eTendering
  - Wed 11th Nov

- **23rd Nov**
  - Release EOI to Market
  - Mon 16th Nov

- **30th Nov**

- **7th Dec**
  - Receive EOI's
  - Wed 9th Dec

- **14th Dec**
  - EOI evaluation

- **21st Dec**
  - Identify Recommended Shortlist
  - Fri 18th Dec

- **Jan 16**
  - Announce Shortlist
  - Shortlist approval
  - Jan 16
The Northern Road Upgrade

Post-Christmas program

- **The Northern Road Stage 3 North:**
  - Request for Tender phase to start January 2016

- **The Northern Road Stage 4:**
  - Commence EOI phase in February 2016
  - Request for Tender phase to start April 2016 (three months after TNR3N)
  - Steps and durations to be similar to TNR3N, but with around three month stagger

- **The Northern Road Stage 2 / Bringelly Road Stage 2:**
  - Commence EOI phase in April 2016
  - Request for Tender phase to start June 2016 (three months after TNR4)

- **The Northern Road Stage 3 South:**
  - Procurement phase for Construct Only to start in 2017.
Probity
Probity

- A Probity advisor will be engaged by Roads and Maritime

- The role of the Probity Advisor is to:
  - Ensure the selection process is fair and equitable
  - Independently validate the selection process
  - Providing confidence that appropriate processes were fully adhered to and that no party was given an unfair advantage or were unfairly discriminated against

- Anyone with concerns about the conduct or probity of the selection process should promptly raise these with the Probity Adviser.
Further information

Western Sydney Infrastructure Plan (WSIP)

The Northern Road Upgrade Stage 2

The Northern Road and Bringelly Road Interchange

The Northern Road Upgrade Stage 3

The Northern Road Upgrade Stage 4

The Northern Road Upgrade Stage 3 and Stage 4 State significant Infrastructure Application Report:

The Northern Road Upgrade Stage 3 and Stage 4 Secretary’s Environmental Assessment Requirements (SEARS) –
Contact

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